

What Is Claimed Is:

1. A fitting structure for knobs provided with a fitting member fitted to a shaft member and a knob arranged concentrically with the fitting member and fitted to a front face of the fitting member, wherein

the fitting member has a base having a flat portion, a stopper protruding forward from the base, and a through hole provided in the flat portion, wherein the knob has a plurality of projections positioned on the same circle, and wherein in fitting the knob to the fitting member, when the knob is rotated while being pressed backward in a state in which the projections are kept in contact with the flat portion, the projections slide on and in contact with the flat portion and when the projections hit against the stopper and the rotation of the knob is stopped, the projections and the through hole become opposite each other to enable the knob and the fitting member to be coupled to each other after the projections are fitted into the through hole.

2. The fitting structure for knobs according to in Claim 1, wherein the base has a cylinder protruding forward in its central part, and wherein the projections perform rotary actions with the cylinder as a guide.

3. The fitting structure for knobs according to in Claim 1, wherein the through hole is formed adjacent to the stopper.

4. The fitting structure for knobs according to in Claim 1, wherein a plurality of the stoppers and the through holes are provided.

5. The fitting structure for knobs according to in Claim 1, wherein the base of the fitting member has an annular fitting portion on the same circle, wherein the knob has a plurality of hooks on the same circle, and wherein the hooks of the knob are engaged with the fitting portion of the fitting member to couple the knob and the fitting member to each other.

6. The fitting structure for knobs according to in Claim 5, wherein the knob has a plurality of keep pieces arranged on the same circle, wherein each of the keep pieces is positioned between the hooks of the knob, and wherein each of the keep pieces is kept in contact with the fitting portion of the fitting member.

7. The fitting structure for knobs according to in Claim 5, wherein a position in which the fitting portion of the fitting member is engaged with the hooks of the knob is farther outward in a radial direction than a position in which the projections of the knob are fitted into the through hole of the fitting member.

8. The fitting structure for knobs according to in Claim 1, further provided with a rotation drive member of which the shaft member is rotatable, wherein the fitting member is fitted to the shaft member.

9. The fitting structure for knobs according to

in Claim 8, wherein the rotation drive member comprises a motor.

10. A fitting structure for knobs provided with a fitting member fitted to a shaft member and a knob arranged concentrically with the fitting member and fitted to a front face of the fitting member, wherein the fitting member has a base, a plurality of arcwise guides protruding forward from the base and provided on the same circle, gaps each provided between adjacent ones of the guides, and guide faces each provided at a top of one or another of the guides and inclined relative to the base, wherein the knob has a plurality of projections positioned on the same circle, and wherein in fitting the knob to the fitting member, when the knob is pressed backward in a state in which the projections are kept in contact with the guide faces, the projections are guided on the guide faces, the knob or the fitting member is rotated so as to enable the projections to approach the base and, after the projections are positioned in the gaps, the knob and the fitting member are enabled to be coupled to each other.

11. The fitting structure for knobs according to in Claim 10, wherein the projections of the knob are held between adjacent ones of the guides of the fitting member.

12. The fitting structure for knobs according to in Claim 10, wherein the fitting member is provided with through holes bored in the parts of the base positioned

between the gaps, and wherein the projections of the knob are fitted into the through holes.

13. The fitting structure for knobs according to in Claim 10, wherein the projections of the knob are arranged to form a cross.

14. The fitting structure for knobs according to in Claim 10, wherein the guide faces, inclined in the same direction relative to the base, are formed at the tops of the plurality of guides of the fitting member.

15. The fitting structure for knobs according to in Claim 10, wherein the base of the fitting member has an annular fitting portion on the same circle, wherein the knob has a plurality of hooks on the same circle, and wherein the hooks of the knob are engaged with the fitting portion of the fitting member to couple the knob and the fitting member to each other.

16. The fitting structure for knobs according to in Claim 10, wherein the knob has a plurality of keep pieces arranged on the same circle, wherein each of the keep pieces is positioned between the hooks of the knob, and wherein each of the keep pieces is kept in contact with the fitting portion of the fitting member.

17. The fitting structure for knobs according to in Claim 15, wherein a position in which the fitting portion of the fitting member is engaged with the hooks of the knob is farther outward in a radial direction than a position in which the projections of the knob are

arranged in the gaps.

18. The fitting structure for knobs according to in Claim 10, wherein the base of the fitting member has a front wall and a cylindrical side wall extending backward from a circumference of the front wall, wherein the front wall is provided with the guides protruding forward, wherein the knob has a front wall and a cylindrical side wall extending backward from the circumference of the front wall, wherein the front wall of the knob is fitted with the projections protruding backward in a state of being positioned in the cylindrical side wall, and wherein the side wall of the fitting member is positioned within the side wall of the knob.

19. The fitting structure for knobs according to in Claim 10, further provided with a rotation drive member of which the shaft member is rotatable, wherein the fitting member is fitted to the shaft member, and wherein the fitting member rotates together with the shaft member when the knob is fitted.

20. The fitting structure for knobs according to in Claim 19, wherein the rotation drive member comprises a motor.